

Claims

1. A method for manufacturing a constructional panel comprising the steps of:-

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providing a mould mat comprising a plurality of raised ribs, the ribs defining recesses therebetween and the raised ribs having upper surface contours;

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placing a mask on the mould mat ribs to substantially cover at least the upper surface of the ribs;

casting a cementitious material in the mould; and

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removing the cast panel thus formed from the mould.

2. A method as claimed in claim 1 comprising the step of:-

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applying a force to substantially seal the mask to the upper surface of the ribs.

3. A method as claimed in claim 1 wherein the force is a pressure force.

4. A method as claimed in claim 2 wherein the force is a magnetic force.

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5. A method as claimed in claim 4 wherein the mould mat and/or the mask are at least partially magnetised.

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6. A method as claimed in claim 5 wherein the mould mat and the mask are at least partially of a magnetic material.

7. A method as claimed in claim 1 comprising applying a retarder to the mould mat, prior to casting a cementitious material in the mould.
- 5 8. A method as claimed in claim 7 wherein the retarder is removed from the face of the panel, after casting.
9. A method as claimed in claim 8 wherein the retarder is removed by washing.
- 10 10. A method as claimed in claim 1 comprising casting a facing material in the recesses of the mould mat prior to casting the cementitious material.
11. A method as claimed in claim 10 wherein the facing material is a brick or brick-like material.
- 15 12. A method as claimed in claim 10 wherein the facing material is of a cementitious material.
13. A method as claimed in claim 10 wherein the facing material includes a colouring agent.
- 20 14. A method as claimed in claim 1 comprising the step of removing the mask prior to casting of the cementitious material.
- 25 15. A method as claimed in claim 7 comprising removing the mask after application of the retarder.
16. A method as claimed in claim 10 comprising removing the mask after casting of the facing material.

17. A method as claimed in claim 1 wherein the mask comprises a masking tool.
18. A method as claimed in any of claim 1 wherein the mask comprises a grid.
- 5 19. A method as claimed in claim 1 wherein the mould mat is manufactured by:-
 - providing a mould box;
 - 10 building a panel comprising a plurality of elements with joints therebetween in the mould;
 - 15 applying a mould-forming material over the exposed face of the panel thus formed to form a mould mat; and
 - 20 removing the mould mat from the mould, the mould mat having a plurality of ribs with an upper surface contour corresponding to the contour of the joints of the panel built in the mould box.
- 20 20. A method as claimed in claim 19 wherein the mask is manufactured by:-
 - 20 applying a mask-forming material over the ribs of the mould mat; and
 - removing the mask from the ribs.
- 25 21. A method as claimed in claim 20 wherein the mask is formed from a flowable material.
22. A method as claimed in claim 21 wherein the mask is formed by:-
 - 30 providing damming means around the ribs;

pouring the mask-forming material onto the ribs;

setting the mask-forming material;

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removing the damming means; and

removing the formed mask from the ribs.

10 23. A method for casting a cementitious constructional elements with a facing comprising the steps of:-

placing a mould mat in a mould, the mould mat comprising a grid defining a plurality of recesses therebetween;

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casting a facing material in the recesses of the mould mat;

casting a cementitious material to a desired thickness on top of the cast facing material; and

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removing the cast panel thus formed from the mould.

24. A method as claimed in claim 23 comprising the step after casting of the facing and prior to casting of the cementitious material, of placing an insert grid over the grid pattern of the mould mat.

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25. A method as claimed in claim 24 wherein the insert grid is shaped to form recessed mortar joints in the cementitious material.

26. A method as claimed in claim 23 wherein the method includes the step of applying a retaining force to the insert grid to retain the retaining grid in a desired position during casting of the cementitious material.
- 5 27. A method as claimed in claim 26 wherein the retaining force is applied by a spring bias from the retaining grid/cage.
28. A method as claimed in claim 26 wherein the retaining force is applied by a positioning tool.
- 10 29. A method as claimed in claim 28 wherein the method includes the step of inserting the positioning tool into the mould to engage the insert grid and retain the grid in position during casting of the cementitious material.
- 15 30. A method as claimed in claim 24 wherein the facing material is a brick or brick-like material.
31. A method as claimed in claim 24 wherein the facing material is a cementitious material.
- 20 32. A method as claimed in claim 30 wherein the facing material may include a colouring agent.
33. A method as claimed in claim 24 comprising inserting a masking tool to engage the grid pattern of the mould mat and withdrawing the masking tool prior to casting of the cementitious material.
- 25 34. A method for producing a stone-like effect with mortared joints comprising pressing a masking tool against a mould mat to cover the areas which would correspond to mortared joints, and applying a retarder.
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35. A method as claimed in claim 34 comprises removing the masking tool to the remaining surface of the mould mat.
- 5 36. A method as claimed in claim 35 comprising placing the mould mat in a mould box to produce a casting, typically of a cementitious material.
- 10 37. A method as claimed in claim 36 comprising a box to produce a casting, typically of a cementitious material after curing, of applying water to the face of the casting to expose the aggregate of the cementitious material.
38. A method for manufacturing a mask for use in moulding a constructional panel comprising:-
 - 15 providing a mould mat having a plurality of ribs with an upper surface contour corresponding to the contour of jointing between constructional elements;
 - 20 applying a mask-forming material onto the ribs of the mould mat; and removing the mask from the ribs.
39. A method as claimed in claim 38 wherein the mask is formed from a flowable material.
- 25 40. A method as claimed in claim 39 wherein the mask is formed by:-
 - 30 providing damming means around the ribs;
 - pouring the mask-forming material onto the ribs;

setting the mask-forming material;

removing the damming means; and

5 removing the formed mask from the ribs.

- 10 41. A cast panel comprising a plurality of facing elements with a jointing between the facing elements, the panel having a defined interface between the facing elements and the jointing material and the panel being substantially of cementitious material.
42. A panel as claimed in claim 41 wherein the facing elements are of brick or brick-like material.
- 15 43. A panel as claimed in claim 41 wherein the facing elements are substantially of cementitious material.
44. A panel as claimed in claim 43 wherein the facing elements replicate a stone facing.